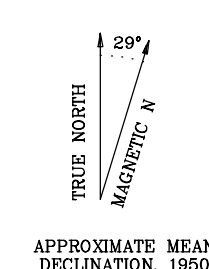
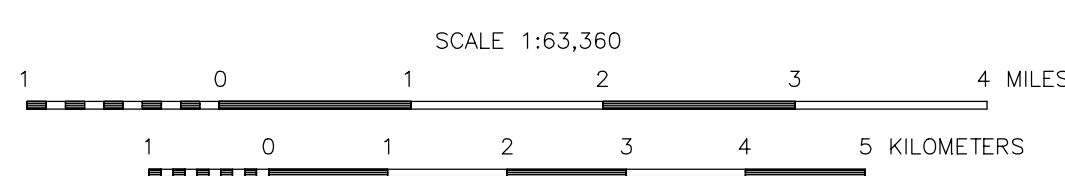


The geophysical data were acquired with a DIGHEM<sup>TM</sup> Electromagnetic (EM) system, a Sinterex cesium CS2 magnetometer, and a Herz VLF system installed in an F4U-7C 1-Squadron aircraft. The survey was conducted and recorded data from a radar altimeter, GPS navigation system, 50/60 Hz monitors and video camera. Flights were performed at a mean terrain clearance of 200 feet along survey flight lines with a spacing of a quarter of a mile. The lines were flown perpendicular to the flight lines at intervals of approximately three miles.

A SerCEL Real-Time Differential Global Positioning System (RT-DGPS) was used for both navigation and flight path recovery. The helicopter position was derived every 0.5 seconds using both real-time and post-processing differential positioning to a relative accuracy of better than 10 m. Flight path positions were projected onto the Clarke 1866 (UTM) spheroid, 1927 North American datum using a Central Meridian (CM) of 166°, a north constant of 0 and an east constant of 500,000 m. Positional accuracy of the presented data is better than 10 m with respect to the UTM grid.

The DUGHEN<sup>2</sup> EM system measured inphase and quadrature components at five frequencies. Two vertical coaxial coil-pairs operated at 900 and 5000 Hz while three horizontal coplanar coil-pairs operated at 900, 7200 and 56,000 Hz. EM data were sampled at 0.1 second intervals. The EM system responds to bedrock conductors, conductive overburden, and cultural sources. Apparent resistivity is computed from the EM data and the apparent resistivity component of the coplanar 7200 Hz using the pseudo-layer half space model. The data were interpolated onto a regular 100 m grid using a modified Akima (1970) technique.

Akima, H., 1970, A new method of interpolation and smooth curve fitting based on local procedures: *Journal of the Association of Computing Machinery*, v. 17, no.4, p.589-602.



The map shows the study area in the Bismarck Sea. It includes the locations of Teller, Bendizeben, and the NOME Survey Area. The map is bounded by latitudes 0° to 6°N and longitudes 156° to 159°E. A grid system is overlaid with labels D, C, B, A and 3, 2, 1, 6. The NOME Survey Area is indicated by a shaded region within the grid.

The map has been compiled and drawn under contract between the State of Alaska, Department of Natural Resources, Division of Geological & Geophysical Surveys, and Stevens Exploration Management Corp. The map was produced using the same airborne geophysical data as the earlier full color version released by DGGs in 1994. Airborne geophysical data for area 1 were acquired and processed in 1993 under contract between DGGs and WGM, Mining and Geological Consultants, Inc. The data for areas 2 and 3 were provided by Beaufort Straits North Corporation. The contract acquisition and processing of the data for DIGHEM, a division of CGG Canada Ltd., Other products from this survey are available from DGGs, 3354 College Road, Fairbanks, Alaska, 99709-3707.

